BPA Basics: Preparing Work Group Participants to Complete Business Process Analysis

Participant's Guide

Public Health
INFORMATICS
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Overview

Workshop Goal

Describe a methodology to analyze business processes for information systems that support their work.

Workshop Objectives

To build toward this goal, the following instructional objectives will be addressed.

By the end of the workshop, you will be able to:

1. Describe at a detailed-level the theory, principles, steps, and activities of Business Process Analysis.

Agenda

This workshop includes approximately 3.5 hours of instructional time.

Key Concepts and Tools for Business Process Analysis.....3 hours, 35 minutes

Introduction (15 min.)
Review of Orientation Workshop (50 min.)
Group Process (20 min.)
Context Analysis (60 min.)
Task Flow Diagrams (60 min.)
Summary (10 min.)

Review of Orientation Workshop

Directions: Recall from your previous workshop and other readings as much of the information below as you can.

Business Process Analysis

Definition/Purpose	
Inputs (what we need to get started)	
Process (steps)	
Outcomes/products	
Standards (how we know we did well)	
Roles/functions (who is involved and how)	
Key communication links	
Key principles	

Requirements Definition

Definition/Purpose	
Inputs (what we need to get started)	
Process (steps)	
Outcomes/products	
Standards (how we know we did well)	
Roles/functions (who is involved and how)	
Key communication links	
Key principles	

Logical Design

Definition/Purpose	
Inputs (what we need to get started)	
Process (steps)	
Outcomes/products	
Standards (how we know we did well)	
Roles/functions (who is involved and how)	
Key communication links	
Key principles	

Guidelines for Working Together Productively

- Be an active participant. There is a reason why you are in the Work Group. All members have contributions to make.
- Listen with an open mind.
- Meet commitments or let others know if you are struggling to do so.
- Represent your function and your organization, not your personal interests. Think of what is best for the organization.
- Resist talking about physical design—make a note on scratch paper and move on. We'll get to that later.
- If you lose track of where the group is in the process, speak up! The facilitator often has to clarify and synthesize, and it is good to make sure everyone is on the same page.
- Be patient if the facilitator puts something on the "parking lot." It may be an unnecessary level of detail for the current task, or it may be something that will be discussed later in the process.
- Be prepared for the facilitator to ask probing questions. S/he is not questioning your expertise; s/he is just trying to get to a certain level of detail.
- Realize that even though your organization may be unique, the same is true of organizations who go through this process; however, the vast majority find great value by the time the process is complete. Be willing to speak and listen and see what happens!
- We'll make decisions by consensus, which means that everyone has to agree to support a given decision or we cannot move forward. Agreeing to support something doesn't necessarily mean you have 100% confidence that it is the best decision, but that you are confident enough in your process, the Work Group, and your decision to support it and move forward. Feel free to question and challenge the work products being produced.

Benefits of Using the Institute Requirements Development Methodology

- Business process analysis provides a logical framework for determining information system requirements that assist in achieving organization objectives. It also provides a framework for process improvement.
- Work tasks represent a logical progression of activity.
- Working collaboratively among functional areas and among organizations optimizes the use of resources.
- Working in logical phases with defined products provides a framework for effective project management. Using an efficient Methodology optimizes the use of participants' time.
- Using a variety of graphical tools provides a structure within which creativity may flourish.
- Mapping out business processes and focusing on the system outputs/business outcomes ensures that all (and only) the data required are captured and stored, only necessary processes are used, the scope of the system is clearly delineated, and all efforts—whether to build or to buy—are streamlined.
- The products of Requirements Development (Business Process Analysis, Requirements Definition, Logical Design) empower organizations to make informed choices about the options available to them: Buy, build, or collaboratively develop health information systems with similar organizations.
- Collaborative Requirements Development by affiliated organizations or members of an organization provide a high degree of interoperability among systems, which enables better data flow among member organizations and their partners. It improves the ability to provide mutual assistance in a crisis situation. The shared requirements also allow members/organizations to have one voice in negotiating with information systems vendors.
- Ultimately, with improved, well-understood processes and health information systems that support them, organizations have improved service, more timely response, and potential for reduced cost.

Glossary

Automating: Attempting to reduce an existing manual job to a set of computer programs that can replace the existing manual effort with the minimum of human effort or understanding.

Business context: Organizational groupings involved in the process and how they relate to one another to achieve the process goals and objectives

Business process: A set of related work tasks designed to produce a specific desired business result (such as one or more products or services for customers of the business enterprise). The process result may be customer- or market-oriented or internal to the organization.

Business process analysis (BPA): The act of documenting and rethinking an entire business process for the purpose of restructuring the sequence and tasks required. The goal is to dramatically improve the means by which the organization achieves the desired results associated with the process.

Business process analysis methodology: An approach for accomplishing BPA based on industrial engineering, systems theory, and software engineering.

Business rules: A business rule is a statement that defines or constrains some aspect of the business. It is intended to assert business structure or to control or influence the behavior of the business. The statement is usually in "if □then" format that describes the appropriate next step to take given a variety of variables.

Business task: A set of actions that adds an identifiable value to a given process objective.

Context diagram (entity diagram): A non-technical graphical tool for recording context information. It consists of the following elements: (1) entity—a person or group of people (e.g., accounts payable clerk or accounts payable department) who performs one or more tasks involved in a process. (2) Transaction: Information exchanges between entities. Entities are represented by ovals and transactions are represented by arrows. A context diagram may involve all the transactions of a single user of a system or of multiple users. Usually, single-user diagrams are attempted first (for ease), but multi-user diagrams are needed to get a good look at an entire process.

Entity: See *context diagram.*

Function: A repeatable task series or operation that is used in more than one instance and can be shared across multiple Business Processes.

Functional flow: Same as task flow.

Informating: A term coined by Shoshana Zuboff to describe the unique capacity of information technology to not only automate, but to generate information about the underlying productive and administrative processes of an organization through which it achieve its goals and objectives. Informating attempts to enrich jobs by providing the worker or manager with new kinds of information and controls to be able to better adapt and respond to the changes in the real world. In this respect, informating is a complement to business process analysis.

Logical design: The process in which the business analyst and/or Work Group describes (in writing and graphically) the database requirements for the system (the database structure). This is the final step in the process prior to physical design, and the products provide guidelines from which the programmer can work.

Operation: A task series that completes a transaction.

Outcome: The objective or resulting transaction of a Business Process

Project definition: Determines the general boundary for a project, its relative merit versus other projects, and its general benefit to the organization. This phase concentrates on problem definition and general identification of the business functionality to be supported.

Result: A task output that may be used in one of three ways (a) as an input to the next sequential step (b) as an input to a downstream step within a task series (c) as the achievement of an organizational objective

Requirements definition: The purpose of requirements definition is to refine our understanding of the work flow and then to define database outputs needed to support that work. Requirements definition serves to specifically define the functionality to be supported. In addition, the physical constraints are examined, and the specific project scope determined. Requirements Definition answers the question: "How would you see information systems supporting (task X)?"

Task: A definable piece of "work" that can be done at one time; i.e. what happens between the "in-box" and the "out-box" on someone's desk. A business process is made up of a series of work tasks.

Task flow diagram: Graphical description of tasks showing inputs, processes, and results for each step that makes up a task.

Task series: Any succession or progression of discrete tasks.

Task set: The task set of tasks required to fully define the business process.

Transaction: See *context diagram.*

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